

**TOWN OF KURE BEACH**  
**SYSTEM DEVELOPMENT FEES**  
**AS OF OCTOBER 31, 2017**

**SUMMARY OF HOUSE BILL 436 (SESSION LAW 2017-138)**

House Bill 436 (Session Law 2017-138) entitled “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations” was signed by Governor Cooper on July 20, 2017. This bill clarifies a local government utility’s authority to assess upfront charges for water and sewer. This new law grants local government utilities specific authority to assess one type of upfront charge called a system development fee.

In the bill, a system development fee is defined as follows:

“A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in the Article.”

The system development fee must be calculated based on a written analysis that:

1. Is prepared by a financial professional or a licensed engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.
2. Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
3. Employs general accepted accounting, engineering, and planning methodologies, including buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of House Bill 436.
4. Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fees and the aggregate thereof.
5. Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.
6. Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
7. Covers a planning horizon of not less than 10 years nor more than 20 years.

8. Is adopted by resolution or ordinance of the local government unit in accordance with G.S. 162A-209.

#### Adoption and Review Process

For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.

After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions.

The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

#### Use and Administration of Revenue

Revenue from system development fees calculated using the incremental cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

1. Costs of constructing capital improvements including, and limited to, any of the following:
  - a. Construction contract prices.
  - b. Surveying and engineering fees.
  - c. Land acquisition cost.
  - d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed subdivisions a. through c. of this subdivision.
2. Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.
3. If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.

System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

#### Time for Collection of System Development Fees

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

### **PROCESS FOR DETERMINING WATER AND SEWER SYSTEM DEVELOPMENT FEES FOR KURE BEACH**

A common legal consideration (Rational Nexus) related to system development costs (SDC) that are used to calculate system development fees is establishing a reasonable relationship between the amount of the SDC and the cost associated with serving the new development. The Rational Nexus test considers the following elements:

1. A connection between new development and the new or expanded facilities required to accommodate such development.
2. Identification of the cost of new or expanded facilities.
3. Apportionment of the cost to new development in relation to the benefits it receives.

For element number one, Kure Beach Public Works Department evaluates capital improvement needs relating to water and sewer operations considering the need for new facilities to accommodate growth. These needs are incorporated into capital improvement plans. The water and sewer infrastructure has been constructed taking into account projected future growth and system demands.

Element number two, relating to the cost of new or expanded facilities, is satisfied by maintaining records of capital asset additions, disposals and improvements that are then used for financial reporting purposes and follow generally accepted accounting principles.

Element number three, apportionment of the cost to new development, is accomplished by using one of the permitted calculation methodologies.

### Calculation Methodology

House Bill 436 identified three possible methodologies to use in calculating the system development fees. They are the buy-in method, cost or marginal cost method, or a combined cost method. Based on the planning philosophies and practices followed by Kure Beach that provide for increased capacity in advance of the actual demand, the buy-in method was determined to be the best method to calculate the system development fees. The buy-in method is based on the value of the system's existing capacity. This methodology is typically used when the existing system has adequate capacity for current and future development. With this method, new development "buys" a proportionate share of capacity at the cost of the existing facilities. The buy-in methodology is based on the concept of achieving capital equity between existing and new customers.

### Data, Assumptions and Limitations

The capital asset data used in valuing the system capacity was obtained from the capital asset accounting records that are the basis of capital asset financial reporting in accordance with generally accepted accounting principles. These records detail the original cost, accumulated depreciation and net asset (book) value of each asset. The net book value of water and sewer capital assets as of June 30, 2017 was used in the calculation and updated with capital asset additions and disposals through October 31, 2017.

Additionally two types of valuation adjustments were applicable to determine the value of capacity. First is the debt credit. The outstanding debt relating to water and sewer operations must be deducted from the value of net assets. This is necessary because the debt service for the loans used to acquire the capital assets is included in the water and sewer operating budget and therefore are paid from revenue generated from the monthly water and sewer fees that are based on usage. As of October 31, 2017, the total outstanding debt for water and sewer operations was \$1,098,324.69.

The second valuation adjustment is the grant credit. This credit represents grant proceeds that were received for water or sewer capital additions and improvements. As a result, the capital assets of the Town were increased without using Town funds. The grant credit totals \$402,493.25 and pertains to sewer operations.

Regarding other assumptions, certain older water and sewer capital assets were identified only as "Infrastructure". Therefore, there was no clear delineation between which assets were water capital assets and which were sewer capital assets. In these instances, the assumption used was to equally divide these assets between water and sewer operations.

Finally, a limitation in performing the calculations was whether the water and sewer capital asset listings were complete. Without any other information available relating to water and sewer capital assets, the assumption was made that the capital asset records were sufficient and, therefore, the capital asset records did not contain any material omissions.

Kure Beach Use and Administration of System Development Fees

The system development fees collected by the Town will be accounted for in the Sewer Expansion Reserve Fund (SERF), which is an existing capital reserve fund. Use of the system development fee revenue will require Town Council action to move the funds from the SERF to the Water and Sewer Fund. As a result of using the buy-in method, the associated revenue can be used for previously completed capital improvements for which capacity exists and for capital rehabilitation projects.

Qualifications of Preparer of the Written Analysis

The system development fee analysis was prepared by Arlen Copenhaver, Finance & Budget Officer for the Town of Kure Beach. Arlen has been a Certified Public Accountant (CPA) for over 33 years and has over 36 years of finance-related experience. Included in his experience is over seven years of North Carolina local government finance experience that includes water and sewer financial operations, budgeting, accounting, financial reporting and rate analysis and determination for water and sewer operations.

**SYSTEM DEVELOPMENT FEE ANALYSIS**

Page 6 of this document summarizes the calculation of the system development fees for Kure Beach. The system development fee is divided into two components, water and sewer. Refer to page 6 for specifics of the calculation. In summary the calculated fees are:

CATEGORY	VALUE OF GALLONS PER DAY OF CAPACITY	AVERAGE DAILY USAGE (gals.)	SYSTEM DEVELOPMENT FEE
Water	\$1.83	137.5	\$251.63
Sewer	\$2.49	136.8	\$340.63
Total			\$592.26

The remaining pages of the analysis contain the documentation supporting the system development fees calculated on page 6.

**TOWN OF KURE BEACH  
WATER AND SEWER  
SYSTEM DEVELOPMENT FEES  
AS OF 10/31/2017**

CATEGORY	(a) VALUE OF GALLONS PER DAY OF CAPACITY (EXHIBIT 1)	(b) AVERAGE MONTHLY USAGE (gals.)	(c) = (b)/30 AVERAGE DAILY USAGE (gals.)	(a) x (c) SYSTEM DEVELOPMENT FEE
Water	\$1.83	4,124	137.5	\$251.63
Sewer	\$2.49	4,103	136.8	\$340.63
TOTAL				\$592.26

NOTE: Average monthly usage for the three year period of 7/1/14 to 6/30/17 from the ICS Accounting System.

**EXHIBIT 1**

**TOWN OF KURE BEACH  
CALCULATION OF THE VALUE OF  
GALLONS PER DAY OF CAPACITY FOR WATER AND SEWER**

		WATER	SEWER
Total Net Book Value of Capital Assets	<b>EXHIBIT 2</b>	\$2,509,220.34	\$3,629,063.42
Less:			
Debt Credit	<b>EXHIBIT 3</b>	(\$391,853.34)	(\$706,471.35)
Grant Credit	<b>EXHIBIT 4</b>	\$0.00	(\$402,493.25)
Value of Capacity	(a)	\$2,117,367.00	\$2,520,098.82
Current Total Capacity (mgd)	(b)	1,157,000	1,012,784
Value of Gallons Per Day Capacity	(a)/(b)	\$1.83	\$2.49

Note: Current total capacity (million gallons per day) obtained from the Kure Beach Public Works Department.

**EXHIBIT 2**

**TOWN OF KURE BEACH  
CAPITAL ASSET SUMMARY  
FOR CALCULATION OF SYSTEM DEVELOPMENT FEES**

	ORIGINAL COST	ACCUMULATED DEPRECIATION AS OF 6/30/17	NET BOOK VALUE AS OF 10/31/17	COMMENTS
<b>WATER</b>				
Equipment & Vehicles	\$354,168.60	\$291,883.89	\$62,284.71	EXHIBIT 2-A
Infrastructure	\$4,165,159.00	\$1,785,477.59	\$2,379,681.41	EXHIBIT 2-B
Buildings	\$96,581.08	\$39,675.36	\$56,905.72	EXHIBIT 2-C
Land	\$10,348.50	\$0.00	\$10,348.50	EXHIBIT 2-C
Total Water Capital Assets	\$4,626,257.18	\$2,117,036.84	\$2,509,220.34	
<b>SEWER</b>				
Equipment & Vehicles	\$374,731.97	\$259,245.19	\$115,486.78	EXHIBIT 2-A
Infrastructure	\$5,251,338.81	\$1,805,016.39	\$3,446,322.42	EXHIBIT 2-B
Buildings	\$96,581.08	\$39,675.36	\$56,905.72	EXHIBIT 2-C
Land	\$10,348.50	\$0.00	\$10,348.50	EXHIBIT 2-C
Total Sewer Capital Assets	\$5,733,000.36	\$2,103,936.94	\$3,629,063.42	

TOWN OF KURE BEACH  
 ALLOCATION OF EQUIPMENT AND VEHICLE  
 CAPITAL ASSETS BETWEEN  
 WATER AND SEWER OPERATIONS

	ORIGINAL COST	ACCUMULATED DEPRECIATION AS OF 6/30/17	NET BOOK VALUE AS OF 6/30/17	COMMENTS
<b>Equipment &amp; Vehicles</b>				
Less Water only assets:				
Meyers Plunger Pump	\$5,852.19	\$5,852.19	\$0.00	
Assembly Road Tank Altitude Value	\$46,803.09	\$46,803.09	\$0.00	
Less Sewer only assets:				
O'Brien Hydrojetter	\$40,472.48	\$15,514.45	\$24,958.03	
Generator - Riggings lift station	\$22,510.63	\$4,502.13	\$18,008.50	
Additions:				
Compact Excavator purchased on 7/21/17	\$31,957.73	\$0.00	\$31,957.73	
Equipment & Vehicles to be divided equally between water & sewer	\$603,026.63	\$478,457.22	\$124,569.41	
Allocation of Equipment & Vehicles:				
Water:				
Assets shared with sewer	\$301,513.32	\$239,228.61	\$62,284.71	
Meyers Plunger Pump	\$5,852.19	\$5,852.19	\$0.00	
Assembly Road Tank Altitude Value	\$46,803.09	\$46,803.09	\$0.00	
Total Equipment & Vehicles - Water	\$354,168.60	\$291,883.89	\$62,284.71	
Sewer:				
Assets shared with water	\$301,513.32	\$239,228.61	\$62,284.71	
O'Brien Hydrojetter	\$40,472.48	\$15,514.45	\$24,958.03	
Generator - Riggings lift station	\$22,510.63	\$4,502.13	\$18,008.50	
Scanning Camera purchased on 8/10/17	\$10,235.54	\$0.00	\$10,235.54	
Total Equipment & Vehicles - Sewer	\$374,731.97	\$259,245.19	\$115,486.78	
				Total Water & Sewer Fund Equipment & Vehicle Capital Assets From 6/30/2017 Audited Financial Statements

**TOWN OF KURE BEACH  
ALLOCATION OF INFRASTRUCTURE  
CAPITAL ASSETS BETWEEN  
WATER AND SEWER OPERATIONS**

**EXHIBIT 2-B**

	ORIGINAL COST	ACCUMULATED DEPRECIATION AS OF 6/30/17	NET BOOK VALUE AS OF 6/30/17	COMMENTS
<b>Infrastructure</b>				Total Water & Sewer Fund Infrastructure Capital Assets From 6/30/2017 Audited Financial Statements
Less Water only assets:				
Ft. Fisher Water Line Extension	\$30,792.00	\$4,105.60	\$26,686.40	
Less Sewer only assets:				
Sewer System Improvements (3/8/11)	\$73,752.79	\$9,342.05	\$64,410.74	
Sewer System Improvements (1/6/12)	\$5,000.00	\$550.00	\$4,450.00	
Sewer Treatment Dechlorification	\$14,169.69	\$11,317.36	\$2,852.33	
SeaView Sewer Infrastructure	\$8,000.00	\$306.67	\$7,693.33	
Bypass Force Main	\$204,318.33	\$2,128.32	\$202,190.01	
Infrastructure to be divided equally between water & sewer	\$8,268,734.00	\$3,562,743.98	\$4,705,990.02	
Allocation of Infrastructure:				
Water:				
Assets shared with sewer	\$4,134,367.00	\$1,781,371.99	\$2,352,995.01	
Ft. Fisher Water Line Extension	\$30,792.00	\$4,105.60	\$26,686.40	
Total Infrastructure - Water	\$4,165,159.00	\$1,785,477.59	\$2,379,681.41	
Sewer:				
Assets shared with water	\$4,134,367.00	\$1,781,371.99	\$2,352,995.01	
Sewer System Improvements (3/8/11)	\$73,752.79	\$9,342.05	\$64,410.74	
Sewer System Improvements (1/6/12)	\$5,000.00	\$550.00	\$4,450.00	
Sewer Treatment Dechlorification	\$14,169.69	\$11,317.36	\$2,852.33	
SeaView Sewer Infrastructure	\$8,000.00	\$306.67	\$7,693.33	
Bypass Force Main	\$204,318.33	\$2,128.32	\$202,190.01	
KB Pump Station #1 (completed 10/17)	\$811,731.00	\$0.00	\$811,731.00	
Total Infrastructure - Sewer	\$5,251,338.81	\$1,805,016.39	\$3,446,322.42	

TOWN OF KURE BEACH  
 ALLOCATION OF BUILDINGS AND LAND  
 CAPITAL ASSETS BETWEEN  
 WATER AND SEWER OPERATIONS

	ORIGINAL COST	ACCUMULATED DEPRECIATION AS OF 6/30/17	NET BOOK VALUE AS OF 6/30/17	COMMENTS
<b>Buildings</b>	\$193,162.16	\$79,350.71	\$113,811.45	Total Water & Sewer Fund Buildings Capital Assets From 6/30/2017 Audited Financial Statements
Less Water only assets:	\$0.00	\$0.00	\$0.00	
Less Sewer only assets:	\$0.00	\$0.00	\$0.00	
Buildings to be divided equally between water & sewer	\$193,162.16	\$79,350.71	\$113,811.45	
Allocation of Buildings:				
Water:				
Assets shared with sewer	\$96,581.08	\$39,675.36	\$56,905.73	
Total Buildings - Water	\$96,581.08	\$39,675.36	\$56,905.73	
Sewer:				
Assets shared with water	\$96,581.08	\$39,675.36	\$56,905.73	
Total Buildings - Sewer	\$96,581.08	\$39,675.36	\$56,905.73	
<b>Land</b>	\$20,697.00	\$0.00	\$20,697.00	Total Water & Sewer Fund Land Capital Assets From 6/30/2017 Audited Financial Statements
Less Water only assets:	\$0.00	\$0.00	\$0.00	
Less Sewer only assets:	\$0.00	\$0.00	\$0.00	
Land to be divided equally between water & sewer	\$20,697.00	\$0.00	\$20,697.00	
Allocation of Land:				
Water:				
Assets shared with sewer	\$10,348.50	\$0.00	\$10,348.50	
Total Land - Water	\$10,348.50	\$0.00	\$10,348.50	
Sewer:				
Assets shared with water	\$10,348.50	\$0.00	\$10,348.50	
Total Land - Sewer	\$10,348.50	\$0.00	\$10,348.50	

**EXHIBIT 3**

**TOWN OF KURE BEACH  
CALCULATION OF DEBT CREDIT  
AS OF 10/31/2017**

<u>LOAN DESCRIPTION</u>	<u>WATER PORTION</u>	<u>SEWER PORTION</u>	<u>TOTAL OUTSTANDING BALANCE AT 10/31/17</u>
Sewer Rehabilitation Project	\$0.00	\$137,224.32	\$137,224.32
Kure Beach Pump Station #1	\$0.00	\$475,000.00	\$475,000.00
Water Tower/Well House	\$336,264.84	\$0.00	\$336,264.84
2016 John Deere Backhoe	\$21,247.81	\$21,247.82	\$42,495.63
Compact Excavator	\$15,978.75	\$15,978.75	\$31,957.50
O'Brien Hydrojetter	\$0.00	\$24,856.35	\$24,856.35
FY 2016 Equipment:			
Polaris	\$3,271.15	\$3,271.15	\$6,542.30
Service Truck - 2016 Silverado	\$10,932.00	\$10,932.00	\$21,864.00
Riggings Lift Station Generator	\$0.00	\$13,802.17	\$13,802.17
2015 Ford F-250 Utility Truck	\$4,158.79	\$4,158.79	\$8,317.58
<b>TOTAL</b>	<b>\$391,853.34</b>	<b>\$706,471.35</b>	<b>\$1,098,324.69</b>

**EXHIBIT 4**

**TOWN OF KURE BEACH  
CALCULATION OF GRANT CREDIT  
AS OF 10/31/2017**

<u>FISCAL YEAR</u>	<u>G/L ACCT. NO.</u>	<u>ACCOUNT DESCRIPTION</u>	<u>AMOUNT</u>
2010	30-392-00-00	CWMTF Grants Sewer Rehab	\$268,717.07
2010	30-392-00-01	Financing Sewer Rehab/ARRA Funding	\$305,836.00
2011	30-392-00-00	CWMTF Grants Sewer Rehab	\$44,270.18
		TOTAL	\$618,823.25
		Less: Portion of proceeds processed as grant revenue that is actually debt and included in the outstanding debt calculation	(\$216,330.00)
		Total Grants - Sewer	\$402,493.25